

$$\Delta p = m \Delta v =$$

$$90 \text{ kg}$$

$$= 6.2 \text{ kg} \Delta v$$

$$\frac{1.5}{2}$$

$$2 a) \quad \Delta v = 15 \text{ m/s} \Rightarrow$$

$$v_f^2 = v_i^2 + 2ad$$

$$v_f^2 = 2(9.8 \text{ m/s}^2)(1.5 \text{ m})$$

$$v_f = 5.4 \text{ m/s}$$

$$\Delta p = p_f - p_i = 0 - 85 \times 5.42$$

$$= -461 \text{ N} \cdot \text{s}$$

$$= \frac{460 - (4.6 \times 10^2 \text{ N})}{460, 461 \text{ kg}} \quad \frac{1.5}{2}$$

b) $\Delta p = F \Delta t$
 $F = \frac{\Delta p}{\Delta t} = \frac{461}{0.45} =$

$$F = 1 \text{ kN}$$

$$1 \times 10^3 \text{ N}$$

3 a) $p = mv = 0.003 \text{ kg} \cdot 600 \text{ m/s}$

$$1.8 \text{ kg m/s}$$

$$2 \text{ kg m/s}$$

b) $p_f - p_i = 0.003 \text{ kg} (600 - 200)$

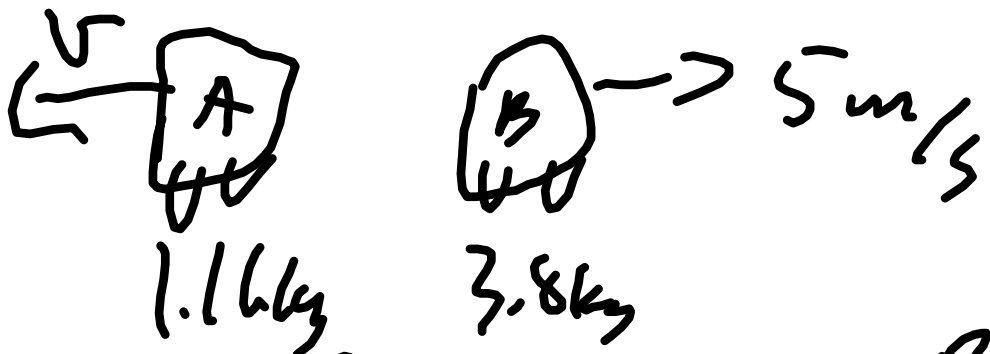
$$\sum V_i = \sum V_f$$

$$6.0 \text{ kg m/s} = 7(1) \text{ V}$$

$$V = 0.845 \text{ m/s}$$

$$(0.85 \text{ m/s})$$

$$0.9 \text{ m/s} / 4$$



$$1.16 \text{ kg} V + 3.8 \text{ kg} 5 \text{ m/s} = 0$$

$$V = -16 \text{ m/s}$$

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